



SKILLSHEET 12.1

Finding a percentage of a quantity

The most common application of percentages is to find a percentage of a quantity. In many cases this will be a percentage of an amount of money.

To find the percentage of an amount, we write the percentage as a fraction or a decimal and then multiply by the amount. The simplest way to do this is to divide the percentage by 100, which converts the percentage to a decimal, before multiplying.

WORKED EXAMPLE

Find 48% of \$380.

THINK

Divide 48 by 100 and then multiply by \$380.

WRITE

$$\begin{aligned} &48\% \text{ of } \$380 \\ &= 48 \div 100 \times \$380 \\ &= \$182.40 \end{aligned}$$

Try these

1 Calculate each of the following.

a 25% of \$32

b 50% of \$460

c 75% of \$84

d 4% of \$1400

e 8% of \$520

f 3% of \$624

g $33\frac{1}{3}$ of \$540

h $66\frac{2}{3}$ % of \$360

i $12\frac{1}{2}$ % of \$400

j $\frac{1}{2}$ % of \$640

k $\frac{3}{4}$ % of \$585

l 6.5% of \$734

2 Ricky works as a clerk and receives \$315.00 per week. Ricky receives a 4% pay rise. How much extra does Ricky receive each week?

3 Asha is an accountant with an annual salary of \$42 000. She receives a Christmas bonus of 3% of her salary. Calculate the size of her Christmas bonus.

4 Mr and Mrs Hamilton sell their house for \$192 000. They must pay a commission to the real estate agent of 2.5%. Calculate the amount of commission received by the real estate agent.

5 Dagmar has shares in a company to the value of \$23 500. The dividend paid to the shareholders is 2.5% of the value of shares held. Calculate the dividend that Dagmar receives.

6 The value of the Australian economy is \$2560 billion. The government announces that the economy will grow by 2.1% over the next year. Calculate the amount by which the government predicts the economy to grow.

SKILLSHEET — ANSWERS

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|-------------------|--------------------------|------------------|
| 1 a \$8.00 | b \$230 | c \$63 |
| d \$56 | e \$41.60 | f \$18.72 |
| g \$180 | h \$240 | i \$50 |
| j \$3.20 | k \$4.39 | l \$45.88 |
| 2 \$12.60 | 3 \$1250 | 4 \$4800 |
| 5 \$587.50 | 6 \$53.76 billion | |